

Please amend the claims as follows:

1. (currently amended) A method of inhibiting transport of anandamide in an individual or animal comprising administering to the individual or animal <sup>in need thereof</sup> a therapeutically effective amount of a compound represented by the following structural formula:



and physiologically acceptable salts thereof, wherein:

X is a hydrophobic aliphatic hydrocarbon chain containing from about 4 to about 30 carbon atoms and having one or more nonconjugated cis double bonds in the middle portion of the chain;

Y is selected from the group consisting of amide and ester radicals; and

Z is selected from the group consisting of hydrogen, lower alkyl, hydroxy substituted lower alkyl, hydroxy substituted lower alkyl forming a ring with the Y group amide radical, aryl, hydroxy substituted aryl, ~~heterocyclic and hydroxy substituted heterocyclic radicals~~ a non-aromatic ring system of 4 to 8 carbon atoms containing one or more heteroatoms such as oxygen or nitrogen with the Y moiety amido nitrogen forming part of the ring structure or a hydroxy substituted non-aromatic ring system of 4 to 8 carbon atoms containing one or more heteroatoms such as oxygen or nitrogen with the Y moiety amido nitrogen forming part of the ring structure;

wherein if X contains from 18 to 21 carbon atoms, Z cannot be hydrogen if Y is an amide radical.

2. (original) The method of claim 1 wherein Z is a polar nonionizable group containing a hydroxy moiety at its distal end.

3. (original) The method of claim 1 wherein Y is an amide radical.

4. (original) The method of claim 1 wherein Y is an ester radical.

5. (original) The method of claim 1 wherein X has two or more nonconjugated double bonds.

6. (original) The method of claim 1 wherein X has at least four nonconjugated double bonds.

7. (original) The method of claim 1 wherein Z is a hydroxy substituted aryl group.

8. (previously amended) The method of claim 1 wherein Z includes an alkyl group alpha to the amido nitrogen.

9. (original) The method of claim 1 wherein Z is an (S) isomer of a chiral molecule.

10. (previously amended) A method of modifying the rate of anandamide inactivation in an individual or animal comprising administering to the individual or animal a therapeutically effective amount of an inhibitor that targets an individual's or animal's anandamide transporter, said transporter being a protein exhibiting a temperature-dependent, saturable, high affinity and  $\text{Na}^+$ -independent mechanism, wherein the inhibitor excludes a compound represented by the following structural formula:



and physiologically acceptable salts thereof, wherein:

X is a hydrophobic aliphatic hydrocarbon chain containing from 18 to 21 carbon atoms and having one or more nonconjugated cis double bonds in the middle portion of the chain;

Y is an amide radical; and

Z is hydrogen.

11. (original) The method of claim 10 wherein the transporter-targeted inhibitor is an anandamide analog having a nonionizable head group containing a hydroxyl moiety at its distal end and a hydrophobic tail having a bent U-shaped stereochemical configuration.

12. (currently amended) A pharmacological formulation comprising a compound represented by the following structural formula:



and physiologically acceptable salts thereof, wherein:

X is a hydrophobic aliphatic hydrocarbon chain containing from about 4 to about 30 carbon atoms and having one or more nonconjugated cis double bonds in the middle portion of the chain;

Y is selected from the group consisting of amide and ester radicals; and

Z is selected from the group consisting of hydrogen, lower alkyl, hydroxy substituted lower alkyl, hydroxy substituted lower alkyl forming a ring with the Y group amide radical, aryl, hydroxy substituted aryl, ~~heterocyclic and hydroxy substituted heterocyclic radicals~~ a non-aromatic ring system of 4 to 8 carbon atoms containing one or more heteroatoms such as oxygen or nitrogen with the Y moiety amido nitrogen forming part of the ring structure or a hydroxy substituted non-aromatic ring system of 4 to 8 carbon atoms containing one or more heteroatoms such as oxygen or nitrogen with the Y moiety amido nitrogen forming part of the ring structure;

wherein if X contains from 18 to 21 carbon atoms, Z cannot be hydrogen if Y is an amide radical.

13. (original) The formulation of claim 12 wherein Z is a polar nonionizable group containing a hydroxy moiety at its distal end.

14. (original) The formulation of claim 12 wherein Y is an amide radical.

Appl. No.: 09/328,742

Response to Office communication dated: 7/18/2003

Attorney Docket: UCONAP/141/US

15. (original) The formulation of claim 12 wherein Y is an ester radical.
16. (original) The formulation of claim 12 wherein X has two or more nonconjugated double bonds.
17. (original) The formulation of claim 12 wherein X has at least four nonconjugated double bonds.
18. (original) The formulation of claim 12 wherein Z is a hydroxy substituted phenyl aryl group.
19. (previously amended) The formulation of claim 12 wherein Z includes an alkyl group alpha to the amido nitrogen.
20. (original) The formulation of claim 12 wherein Z is an (S) isomer of a chiral molecule.
21. (previously added) The method of claim 1 wherein X is a hydrophobic aliphatic hydrocarbon chain containing 19 carbon atoms and having 4 nonconjugated cis double bonds in the middle portion of the chain and Y is an amide radical.
22. (previously added) The formulation of claim 12 wherein X is a hydrophobic aliphatic hydrocarbon chain containing 19 carbon atoms and having 4 nonconjugated cis double bonds in the middle portion of the chain; Y is an amide radical; and Z is a hydroxy substituted aryl radical.